of excellent manure; but a very small quantity of ash just sprinkled over the mass has an excellent effect as a deodorizer.

Mr. Ayres has advised that town and other manures should be dried to a powder by fire heat, and has discovered that the smell caused in drying is destroyed by passing the steam through fire. This plan would only be useful in towns, and where the manure would require to be condensed to save carriage. It might be done in a small brick building "polmaised"—that is, where a heated current of air passes from the exterior through the fire (in pipes open at both ends or by other means) over a layer of manure, and then saturated with moisture, is drawn by an underground drain to supply all or more of the draught of this same fire. The gases and steam would not, I conceive, destroy the fire, as there would be a large proportion of air mixed with them, but would from their nature (sulphuretted hydrogen, &c.,) help to sustain it. W.

April 28th, 1843.

Co-operative Labour amongst small Proprietors in Switzerland.

The proprietors are too small, in general, to keep more than five or six cows all the winter—few can keep half that number; yet the small proprietors continue to send cheese to market as large as our Cheshire dairy farmers, with their dairy stock of 40 or 50 cows, and farms rented at £200 to £300 per year. Gruyere and Parmesan cheeses are quite as large as Cheshire cheeses; and, as the price shows, are incomparably better in quality. They are made by small farmers, each of whom has not, on an average, the milk of half-a-dozen cows to make cheese of. Each parish in Switzerland hires a man, generally from the district of Gruyere, to take care of the herd, and make the cheese; and, if the man comes from Gruyere, all he makes is called Gruyere cheese; although made far enough from Gruyere. One cheeseman, one pressman or assistant, and one cow-herd are considered necessary for every forty cows. The owners of the cows get credit, each of them, in a book daily for the quantity of milk given by each cow. The cheeseman and his assistant milk the cows, put the milk together and make cheese of it, and at the end of the season each owner receives the weight of cheese proportionate to the quantity of milk his cows have delivered. By this co-operative plan, instead of a small-sized unmarketable cheese only, which each could produce out of his three or four cows' milk, he has the same weight in large marketable cheese, superior in quality, because made by people who attended to no other business. The cheeseman and his assistant are paid so much per head for the cows, in money or in cheese, or sometimes they hire the cows, and pay the owners in money or in cheese.—*Abridged from Laing's Notes of a Traveller.*

WOOL.

The increased consumption of foreign wool, and the progress made by the Colonies, will be seen from the following statement:—In 1816 the amount of foreign wool imported was 7,487,313lbs., and from British possessions 6,422,484 lbs.; in 1843 the foreign was 28,110,741 lbs., and from the British possessions 21,132,352lbs., an amount annually increasing.

Mr. Southey says—"To feed our large and growing exportations of woollens, as before exhibited, and at the same time to meet the present demand, very large supplies of wool are wanted, and these we should either grow within the United Kingdom, or obtain them from our Colonies, in preference to foreign countries, when it shall be found practicable. It is estimated that within the British Isles there are at the present time no less than forty millions of sheep, at an average of 4 lbs. per head, annually yielding 160,000,000lbs. of wool, all which, in addition to 65,000,000 lbs., and in one year 75,000,000 lbs. of imported, our looms absorb: while many thousands amongst the working classes participate directly in the advantages arising from the employment which they thence derive." This statement will suffice to shew the great importance—nay, we would say the necessity—of encouraging, by all legitimate means, the growth of wool. Mr. Southey refers to the following observations of Professor Johnston in his valuable work on Agricultural Chemistry, and which being of direct and immediate interest to the practical farmer, we subjoin.

Professor Johnston says—"The growing of wool affords another beautiful illustration, both of the kind of food which animals require for particular purposes, and of the effect which a peculiar husbandry must strongly produce upon the soil. Wool and hair are distinguished from the fleshy parts of the animal by the large proportion of sulphur which they contain. Perfectly clean and dry wool contains about 5 per cent. of sulphur, or every 100 lbs. contain 5 lbs. The quantity as well as the quality of the wool yielded by a single sheep varies much with the breed, the climate, the cultivation, the food, and consequently with the soil on which the food is grown. The Hereford sheep, which are kept lean, and give the finest wool, yield only 1½ lbs., but a Merino often gives a fleece weighing 10 lbs. and 11 lbs., and sometimes as much as 12 lbs. The number of sheep in Great Britain and Ireland amounts to 30,000,000, and these yield 111,000,000 of pounds, or about 4 lbs. to the fleece. This quantity of wool contains about 5,000,000 pounds of sulphur, which is, of course, all extracted from the soil. If we suppose this sulphur to exist in and to be extracted from the soil in the form of gypsum, then the plants which the sheep feed upon must *take out* from the soil, to produce the wool alone, 30,000,000 of pounds, or 13,000 tons of gypsum. Now, though the proportion of this gypsum lost by any